



Cofc

PATENT T1481

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: 7,179,898  
Issued: February 20, 2007  
Name of Patentee: Timothy Peter Bonnert  
Title: HUMAN VANILLOID RECEPTOR-LIKE RECEPTOR  
Application No.: 09/445,614  
Filed: December 8, 1999  
Art Unit: 1649  
Confirmation No.: 1165  
Examiner: Michael T. Brannock  
Customer No.: 210

March 25, 2008

Commissioner for Patents  
Office of Patent Publication  
ATTN: Certificate of Correction Branch  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR APPLICANT'S  
MISTAKE UNDER 37 C.F.R. § 1.323

Sir:

Attached is Form PTO-1050 which is being submitted to correct Applicant's mistake of a minor nature or character in the patent. The mistake occurred in good faith.

The error in the above referenced patent appears on the Cover Page in the section entitled "(73) Assignee:" which incorrectly states Merck & Co., Inc., Rahway, NJ (US) as the Assignee.

The petitioner requests that a Certificate of Correction be issued as follows:

(73) Assignee: Merck Sharp & Dohme Ltd., Hoddessdon (GB)

Certificate  
APR 01 2008  
of Correction

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER FOR PATENTS, OFFICE OF PATENT PUBLICATION ATTN: CERTIFICATE OF CORRECTION BRANCH, P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450, ON THE DATE APPEARING BELOW.

MERCK & CO., INC.

BY: \_\_\_\_\_ DATE: March 25, 2008  
Phyllis Nova

RECEIVED-USPTO  
Patent Publication

APR 01 2008

Petitioner further submits herewith:

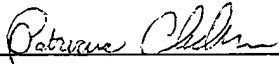
1. USPTO Patent Assignment Details sheet indicating  
Reel/Frame 019013/0684 recorded on March 14, 2007.
2. USPTO Facsimile Transmission Page Confirming Receipt of Assignment
3. USPTO Form 1595 - RECORDATION FORM COVER SHEET
4. Assignment signed by Timothy Peter Bonnert
5. Cover Sheet of U.S. Patent No. 7,179,898 B1.

Issuance of the Certificate of Correction as requested herein is solicited. Please  
send said certificate to:

Merck & Co., Inc.  
126 East Lincoln Avenue  
P.O. Box 2000  
Rahway, NJ 07065

Please deduct the required fee for this submission under 37 C.F.R. § 1.20(a) from  
Merck Deposit Account 13-2755.

Respectfully submitted,

By   
Patricia Chisholm  
Reg. No. 45,822  
Assistant Counsel

MERCK & CO., INC.  
P.O. Box 2000  
Rahway, New Jersey 07065-0907  
(732) 594-5738

RECEIVED-USPTO  
Patent Publication

APR 01 2008



PATENT T1481

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: 7,179,898  
Issued: February 20, 2007  
Name of Patentee: Timothy Peter Bonnert  
Title: HUMAN VANILLOID RECEPTOR-LIKE RECEPTOR  
Application No.: 09/445,614  
Filed: December 8, 1999  
Art Unit: 1649  
Confirmation No.: 1165  
Examiner: Michael T. Brannock  
Customer No.: 210

March 25, 2008

Commissioner for Patents  
Office of Patent Publication  
ATTN: Certificate of Correction Branch  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT FOR APPLICANT'S  
MISTAKE UNDER 37 C.F.R. § 1.323

Sir:

Attached is Form PTO-1050 which is being submitted to correct Applicant's mistake of a minor nature or character in the patent. The mistake occurred in good faith.

The error in the above referenced patent appears on the Cover Page in the section entitled "(73) Assignee:" which incorrectly states Merck & Co., Inc., Rahway, NJ (US) as the Assignee.

The petitioner requests that a Certificate of Correction be issued as follows:

(73) Assignee: Merck Sharp & Dohme Ltd., Hoddesdon (GB)

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER FOR PATENTS, OFFICE OF PATENT PUBLICATION ATTN: CERTIFICATE OF CORRECTION BRANCH, P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450, ON THE DATE APPEARING BELOW.

MERCK & CO., INC.

BY:

Phyllis Nova

DATE: March 25, 2008

RECEIVED-USPTO  
Patent Publication

APR 01 2008

Petitioner further submits herewith:

1. USPTO Patent Assignment Details sheet indicating  
Reel/Frame 019013/0684 recorded on March 14, 2007.
2. USPTO Facsimile Transmission Page Confirming Receipt of Assignment
3. USPTO Form 1595 - RECORDATION FORM COVER SHEET
4. Assignment signed by Timothy Peter Bonnert
5. Cover Sheet of U.S. Patent No. 7,179,898 B1.

Issuance of the Certificate of Correction as requested herein is solicited. Please send said certificate to:

Merck & Co., Inc.  
126 East Lincoln Avenue  
P.O. Box 2000  
Rahway, NJ 07065

Please deduct the required fee for this submission under 37 C.F.R. § 1.20(a) from Merck Deposit Account 13-2755.

Respectfully submitted,

By Patricia Chisholm  
Patricia Chisholm  
Reg. No. 45,822  
Assistant Counsel

MERCK & CO., INC.  
P.O. Box 2000  
Rahway, New Jersey 07065-0907  
(732) 594-5738

RECEIVED-USPTO  
Patent Publication

APR 01 2008

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO: US 7,179,898 B1  
APPLICATION NO.: 09/445,614  
ISSUE DATE: February 20, 2007  
INVENTOR(S): Timothy Peter Bonnert

It is certified that error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Cover Page

(73) Assignee

Delete "Merck & Co., Inc., Rahway, NJ (US) and insert therefor  
-- "Merck Sharp & Dohme Ltd., Hoddesdon (GB)" --.

**MAILING ADDRESS OF SENDER:**

Merck & Co., Inc.  
Patent Dept., RY60-30  
P.O. BOX 2000  
Rahway, NJ 07065-0907

**SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Patent Publication  
Alexandria, VA 22313-1450.**

**RECEIVED-USPTO**

**APR 01 2008**



## United States Patent and Trademark Office

[Home](#) [Site Index](#) [Search](#) [Guides](#) [Contacts](#) [eBusiness](#) [eBiz alerts](#) [News](#) [Help](#)

## Assignments on the Web &gt; Patent Query

## Patent Assignment Details

**NOTE: Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff.**

Reel/Frame: [019013/0684](#)

Pages: 3

Recorded: 03/14/2007

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

## Total properties: 1

1      Patent #: [7179898](#)      Issue Dt: 02/20/2007      Application #: 09445614      Filing Dt: 12/08/1999  
Title: HUMAN VANILLOID RECEPTOR-LIKE RECEPTOR

## Assignor

1      [BONNERT, TIMOTHY PETER](#)

Exec Dt: 12/17/1999

## Assignee

1      [MERCK SHARP & DOHME LTD.](#)  
HERTFORD ROAD  
HODDESDON, HERTFORDSHIRE, ENGLAND EN11 9BU

## Correspondence name and address

PATRICIA L. CHISHOLM  
MERCK & CO., INC.  
PATENT DEPT.  
P.O. BOX 2000 -- RY60-30  
RAHWAY, NJ 07065-0907

If you have any comments or questions concerning the data displayed, contact PRD / Assignments at 571-272-3350. v.2.0.1  
Web interface last modified: April 20, 2007 v.2.0.1

Search Results as of: 03/21/2008 08:40 AM

[HOME](#) | [INDEX](#) | [SEARCH](#) | [eBUSINESS](#) | [CONTACT US](#) | [PRIVACY STATEMENT](#)RECEIVED-USPTO  
PATENT PUBLICATION

APR 01 2008

P. 1 *[Handwritten signature]*  
*21*

\* \* \* TRANSMISSION RESULT REPORT (IMMEDIATE TX) ( MAR. 14. 2007 12:10PM ) \* \* \*

FAX HEADER: MERCK&CO 732 594 4720

DATE	TIME	ADDRESS	MODE	TIME	PAGE	RESULT	PERSONAL NAME	FILE
MAR. 14.	12:09PM	USPTO	ES	1'25"	P.	4 OK		778

# : BATCH  
L : SEND LATER  
D : DETAIL

C : CONFIDENTIAL  
⊗ : FORWARDING  
F : FINE

P : POLLING  
E : ECM

M : MEMORY TX  
S : STANDARD

RECEIVED-USPTO  
Patent Publication

APR 01 2008

RECORDATION FORM COVER SHEET  
PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE  
U.S. PATENT AND TRADEMARK OFFICE

TO THE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE:  
PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COPY THEREOF.

1. Conveying party(ies):  Name(s) <u>Timothy Peter Bonnert</u>  Execution Date(s) <u>December 17, 1999</u>          Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Security Agreement <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Other:  3. Name and address of receiving party(ies):  Name: <u>MERCK SHARP &amp; DOHME LTD.</u>  Internal Address: _____  Street Address: <u>HERTFORD ROAD</u>  City & State: <u>HODDESDON, HERTFORDSHIRE</u>  Zip/Postal Code: <u>ENGLAND EN11 9BU</u>  Additional name(s) & addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	---

4. Application number(s) or patent number(s) are as follows:  
(a) Patent Application No(s). 09/445,614, filed on December 8, 1999,  
and titled:  
HUMAN VANILLOID RECEPTOR-LIKE RECEPTOR  
  
(b) If this document is being filed together with a new application, the execution date of the application is:  
\_\_\_\_\_, Additional numbers attached? ☐ Yes ☐ No

5. Name & address of party to whom correspondence concerning documents should be mailed:  Name: <u>Patricia L. Chisholm</u>  Internal Address: <u>PATENT DEPARTMENT</u> <u>MERCK &amp; CO., INC.</u> <u>P.O. BOX 2000 -- RY60-30</u>  City & State: <u>RAHWAY, N.J.</u> Zip: <u>07065-0907</u>	6. Total no. of applications & patents involved: <u>1</u> 7. Total fee (37 CFR 3.41).....\$ <u>40.00</u> <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> The Director is hereby authorized to charge the deposit account number entered below for any fees which may be required or to credit any overpayment. 8. Deposit account number: <u>13-2755</u>
--	--

DO NOT USE THIS SPACE

9. Statement and signature:  
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.  
Patricia L. Chisholm Reg. No. 45,822 Patricia L. Chisholm March 14, 2007  
Name of Person Signing Signature Date  
Total number of pages including cover sheet, attachments, and documents: 4

NOTE: Send to Mail Stop Assignment Recordation Services or Fax to Patent and Trademark Office at (571) 273-0140

CERTIFICATE OF MAILING OR FACSIMILE TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on:			
Name (Print/Type)	<u>Alina Roche</u>		
Signature	<u>Alina Roche</u>	Date	<u>3/14/07</u>

RECEIVED TO  
FACSIMILE  
APR 01 2008

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

TO THE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE:  
PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COPY THEREOF.

1. Conveying party(ies):		2. Nature of conveyance:	
Name(s)	Execution Date(s)	<input checked="" type="checkbox"/> Assignment	<input type="checkbox"/> Security Agreement
Timothy Peter Bonnert	December 17, 1999	<input type="checkbox"/> Merger	<input type="checkbox"/> Change of Name
		<input type="checkbox"/> Other:	
		3. Name and address of receiving party(ies):	
		Name: MERCK SHARP & DOHME LTD.	
		Internal Address:	
		Street Address: HERTFORD ROAD	
		City & State: HODDESDON, HERTFORDSHIRE	
		Zip/Postal Code: ENGLAND EN11 9BU	
Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Additional name(s) & addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

4. Application number(s) or patent number(s) are as follows:  
(a) Patent Application No(s). 09/445,614, filed on December 8, 1999, and titled:  
HUMAN VANILLOID RECEPTOR-LIKE RECEPTOR

(b) If this document is being filed together with a new application, the execution date of the application is:  
Additional numbers attached? ☐ Yes ☐ No

5. Name & address of party to whom correspondence concerning documents should be mailed:

Name: Patricia L. Chisholm  
Internal Address: PATENT DEPARTMENT  
MERCK & CO., INC.  
P.O. BOX 2000 -- RY60-30  
City & State: RAHWAY, N.J. Zip: 07065-0907

6. Total no. of applications & patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

☐ Enclosed

☒ The Director is hereby authorized to charge the deposit account number entered below for any fees which may be required or to credit any overpayment.

8. Deposit account number: 13-2755.

**DO NOT USE THIS SPACE**

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

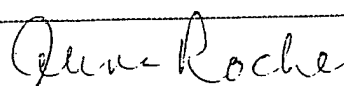
Patricia L. Chisholm Reg. No. 45,822  
Name of Person Signing

  
Signature

March 14, 2007  
Date

Total number of pages including cover sheet, attachments, and documents: 4

**NOTE: Send to Mail Stop Assignment Recordation Services or Fax to Patent and Trademark Office at (571) 273-0140**

CERTIFICATE OF MAILING OR FACSIMILE TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on:			
Name (Print/Type)	Alina Roche	RECEIVED 11/10/07	
Signature		Date	3/14/07
		APR 01 2008	

ASSIGNMENT

WHEREAS, we/I,

Timothy Peter BONNERT

a/all British subject(s) of:

Terlings Park, Eastwick Road,  
Harlow,  
Essex CM20 2QR, United Kingdom

have invented certain new and useful improvements in

Human vanilloid receptor-like receptor

and have executed an application for Letters Patent of the United States of America based thereon the  
17th day of December 1999

AND WHEREAS, Merck Sharp & Dohme Limited, a British company of Hertford Road, Hoddlesdon, Hertfordshire EN11 9BU, United Kingdom, are desirous of acquiring the entire right, title and interest in and to the said invention.

NOW THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, we/I, the said

Timothy Peter BONNERT

have agreed to and do hereby sell, assign and transfer unto the said Merck Sharp & Dohme Limited the entire right, title and interest in and throughout the United States of America and its Territories in and to said invention, said application for Letters Patent and any and all Letters Patent and extensions thereof of the United States of America which may be granted on said invention or part thereof, or on said application or any divisional, continuing, renewal, reissue or other application based in whole or in part thereon, or based upon said invention.

TO BE HELD AND ENJOYED by the said Merck Sharp & Dohme Limited their successors and assigns to the full ends of the terms for which said Letters Patent or any of them may be granted as fully as the same would have been held and enjoyed by us/me had no sale and assignment of said interest been made; and we/I do hereby request that any and all Letters Patent which may be granted upon the said application above referred to, or any of them, upon said invention or any part thereof, be issued to

Merck Sharp & Dohme Limited

RECEIVED-USPTO  
Patent Division

APR 01 2008

aforesaid; and we/I hereby agree for ourselves and our heirs, executors and administrators, to execute without further consideration any further lawful documents and further assurances, and any reissue, renewal or other application for Letters Patent that may be deemed necessary by the assignee herein named fully to secure to the said assignee our interest as aforesaid in and to said invention or any part thereof, and in and to said several Letters Patent or any of them.

IN WITNESS WHEREOF, we/I have hereunto affixed our/my seal(s) and set our/my hand(s)



Timothy Peter Bonnert

Timothy Peter BONNERT

Date: 17 / December / 1999.

FUSAS

RECEIVED-USPTO  
Patent Publication

APR 01 2008



US007179898B1

(12) **United States Patent**  
**Bonnert**(10) **Patent No.:** **US 7,179,898 B1**  
(45) **Date of Patent:** **Feb. 20, 2007**(54) **HUMAN VANILLOID RECEPTOR-LIKE  
RECEPTOR**

2005/0158827 A1 \* 7/2005 Curtis

## FOREIGN PATENT DOCUMENTS

(75) Inventor: **Timothy Peter Bonnert**, Much  
Hadham (GB)

EP	A 0953638	3/1999
EP	1 160 254 A1	5/2001
WO	WO 99/09140	2/1999
WO	WO 00 99/37765	7/1999
WO	WO 99/37675	7/1999
WO	WO 99/46377	9/1999
WO	WO 00/22121	4/2000
WO	WO 00/29577	5/2000
WO	WO 00/32766	6/2000

(73) Assignee: **Merck & Co., Inc.**, Rahway, NJ (US)(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.(21) Appl. No.: **09/445,614**(22) Filed: **Dec. 8, 1999**(30) **Foreign Application Priority Data**

Dec. 8, 1998 (GB) ..... 9827016.8

(51) **Int. Cl.**

<b>C07H 21/04</b>	(2006.01)
<b>C12N 15/63</b>	(2006.01)
<b>C12N 15/12</b>	(2006.01)
<b>C12N 1/15</b>	(2006.01)

(52) **U.S. Cl.** ..... **536/23.5**; 435/6; 435/7.21;  
435/69.1; 435/252.3; 435/325; 436/501; 530/300;  
530/350; 514/2(58) **Field of Classification Search** ..... 530/350;  
435/6, 7.1, 7.21, 69.5, 252.3; 436/501; 536/23.5  
See application file for complete search history.(56) **References Cited****U.S. PATENT DOCUMENTS**

5,834,183 A *	11/1998	Orr et al.	435/6
6,335,180 B1 *	1/2002	Julius et al.	
6,444,440 B1 *	9/2002	Young et al.	435/69.1

## OTHER PUBLICATIONS

Bowie et al., Science 247 (1306)1990.\*  
 SIGMA Product Catalogue, p. 743, 1992.\*  
 Caterina et al., Nature 398(436)1999.\*  
 Sambrook et al., Molecular Cloning, 1989, p. C.10.\*  
 Caterina, M. J., Schumacher, M. A., Tominaga, M., Rosen, T. A.,  
 Levine, J. D. & Julius, D The capsaicin receptor: a heat-activated  
 ion channel in the pain pathway, Nature, Oct. 23, 1997, pp. 816-824,  
 vol. 389.  
 Caterina, M. J. et al. "A capsaicin-receptor homologue with a high  
 threshold for noxious heat", Nature, 1999, vol. 398, pp. 436-441.

\* cited by examiner

**Primary Examiner**—Janet L. Andres**Assistant Examiner**—Michael Brannock(74) **Attorney, Agent, or Firm**—Jack L. Tribble; Patricia L.  
Chisholm(57) **ABSTRACT**The present invention discloses a human vanilloid receptor-  
like (VR-L) receptor.**6 Claims, 4 Drawing Sheets**RECEIVED-USPTO  
Patent Publication

APR 01 2008